

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of the Claims

1 – (Currently Amended) A planar antenna with diversity of radiation realised on a substrate comprising a slot of closed shape dimensioned to operate on a mode higher than a fundamental mode and at least one feed-line coupled to said slot according to a line/slot transition, the perimeter of the slot being selected such that $p = k\lambda_s$ where p is the perimeter of the slot, k is an integer greater than 4 or equal to 2 and λ_s is the guided wavelength in the slot, said antenna comprising a first feed-line coupled in a zone of the slot forming ~~an~~a first open circuit and a second feed-line placed at a distance $d = (2n+1) \lambda_s/4$ from said first line, where n is an integer greater than or equal to zero, said second feed line being coupled in a zone of the slot forming a first short-circuit, so that two complementary radiation patterns are obtained depending on the feed line selected for the access.

2 – (Currently Amended) The antenna of claim 1, wherein ~~each~~the first and second feed-lines terminates in ~~a second and third~~ open circuits and ~~is~~are each coupled to the slot according to a line/slot transition, the length of each feed line after the line/slot transition being equal to $(2k'+1)\lambda_m/4$ where λ_m is the guided wavelength ~~under~~in the feed line and k' is a positive or null integer.

3 – (Currently Amended) The antenna of claim 1, wherein each feed-line is coupled to the slot according to a line/slot transition with a microstrip line terminated by a second short-circuit, the length of each feed line after the line/slot transition being equal to $k''\lambda_m/4$ where λ_m is the guided wavelength ~~under~~in the feed line and k'' is a positive or null integer.

4 – (cancelled)

5 – (Currently Amended) The antenna of claim 1, wherein the feed-lines are realised in microstrip technology, or in coplanar technology ~~or by a coaxial cable~~.

6 – (Previously Presented) The antenna of claim 1, wherein the shape of the slot is an annular, square, rectangular, polygonal shape or is in a clover leaf form.

7 – (Previously Presented) The antenna of claim 6, wherein the slot is of rectangular shape and the feed-lines are equidistant from an axis of symmetry of the slot.

8 – (Previously Presented) The antenna of claim 6, wherein the slot is of rectangular shape and one of the feed-lines is positioned according to an axis of symmetry of the slot.

9 – (Previously Presented) The antenna of the claim 1, where the feed lines are connected to a transmission/reception means enabling a diversity of reception.

10 – (New) A planar antenna with diversity of radiation realised on a substrate comprising a slot of closed shape dimensioned to operate on a mode higher than a fundamental mode and at least one feed-line coupled to said slot according to a line/slot transition, the perimeter of the slot being selected such that $p = k\lambda_s$ where p is the perimeter of the slot, k is an integer greater or equal to 2 and λ_s is the guided wavelength in the slot, said antenna comprising a first feed-line coupled in a zone of the slot forming first open circuit and a second feed-line placed at a distance $d = (2n+1) \lambda_s/4$ from said first line, where n is an integer greater than or equal to zero, said second feed line being coupled in a zone of the slot forming a first short-circuit, wherein each feed-line is coupled magnetically to the slot according to a tangential line/slot transition.

11 – (New) The antenna of claim 10, wherein the feed-lines are realised in microstrip technology or in coplanar technology.

12 – (New) The antenna of claim 10, wherein the shape of the slot is an annular, square, rectangular, polygonal shape or is in a clover leaf form.

13 – (New) The antenna of claim 12, wherein the slot is of rectangular shape and the feed-lines are equidistant from an axis of symmetry of the slot.

14 – (New) The antenna of claim 10, where the feed lines are connected to a transmission/reception means enabling a diversity of reception.